

Table 3

Salt Concentrations - 1989 to Present

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
NRF-6	01/08/92				54000	200000	230000
NRF-6	03/10/92				81000	200000	230000
NRF-6	05/14/92				72000	190000	210000
NRF-6	07/08/92				91000	200000	220000
NRF-6	09/18/92				90000	210000	240000
NRF-6	12/09/92				95000	210000	240000
NRF-6	04/09/93				100000	230000	250000
NRF-6	No Data					220000	
NRF-6	09/14/93				97000	210000	240000
NRF-6	11/04/93				95000	205000	35000
NRF-6	03/10/94				88000	200000	230000
NRF-6	06/09/94				86000	190000	220000
NRF-6	No Data					220000	
NRF-6	12/21/94					250000	260000
NRF-6	03/16/95				73000	250000	270000
NRF-6	06/09/95				130000	250000	270000
NRF-6	09/13/95				120000	230000	240000
NRF-6	11/07/95				100000	220000	230000
NRF-6	01/16/96	130000	4400	37000	100000	220000	220000
NRF-6	03/19/96	52000	4400	35000	110000	230000	210000
NRF-6	06/10/96	120000	4700	36000	100000	230000	210000
NRF-6	09/05/96	130000	4400	35000	110000	240000	200000
NRF-6	01/31/97	130000	5000	32000	110000	270000	200000
NRF-6	06/05/97	134000	5000	34400	122000	267000	194000
NRF-6	09/02/97	141000	5700	35900	124000	257000	191000
NRF-6	11/17/97	128000	5000	33000	115000	251000	182000
NRF-6	02/09/98	132000	5300	33700	118000	261000	165000
NRF-6	05/11/98	137000	5000	34200	119000	245000	156000
NRF-6	08/04/98	125000	J 4530	33400	113000	243000	159000
NRF-6	11/02/98	124000	J 4500	32100	100000	209000	145000
NRF-6	02/04/99	114000	J 4480	29300	93600	199000	138000
NRF-6	05/03/99	117000	J 4700	30400	95600	228000	131000
NRF-6	07/27/99	111000	J 4300	28800	83900	191000	128000
NRF-6	11/01/99	96300	J 3700	26500	77200	176000	113000
NRF-6	01/31/00	96900	J 4800	27100	82900	158000	92100
NRF-6	05/01/00	103000	J 4000	27000	76400	177000	92200
	Mean	120081.25	4694.38	32918.75	98816.13	223588.24	198656.25
	Std. Dev.	21270.61	466.68	2915.53	17421.18	24780.39	52126.77
	Max	141000.00	5700.00	37000.00	130000.00	270000.00	270000.00
	Min	52000.00	3700.00	26500.00	54000.00	176000.00	35000.00
NRF-7	09/10/91	30000	2800	9000	9300	6700	14000
NRF-7	01/08/92				8100	6500	19000
NRF-7	03/10/92				7000	6500	17000
NRF-7	05/14/92				8700	5100	15000
NRF-7	07/08/92				8900	5100	16000
NRF-7	09/18/92				11000		35000
NRF-7	12/09/92				8400	5500	16000
NRF-7	04/09/93				8100	5400	15000
NRF-7	06/10/93				7800	5500	15000
NRF-7	09/14/93				8500	5000	15000
NRF-7	11/03/93				8700	4800	15000
NRF-7	03/15/94				8100	5000	14000
NRF-7	06/13/94				8300	4900	14000
NRF-7	09/12/94				8600	5200	14000
NRF-7	11/04/94				8000	4900	14000
NRF-7	03/17/95				4500	5300	13000
NRF-7	06/09/95				9300	4800	13000
NRF-7	09/14/95				9000	4900	13000
NRF-7	11/08/95				8500	4900	13000
NRF-7	01/16/96	25000	2900	8800	9100	4600	13000
NRF-7	03/19/96	25000	2800	8900	8900	5000	14000
NRF-7	06/10/96	25000	2800	9300	8700	5100	13000
NRF-7	09/03/96	24000	2800	9000	9500	5200	14000
NRF-7	01/31/97	21000	3000	8300	9000	5400	15000

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
NRF-7	06/05/97	26900	2900	8900	9100	4700	13500
NRF-7	09/02/97	26600	2900	9100	8300	4600	13700
NRF-7	11/18/97	27200	3300	9500	9500	4000	13800
NRF-7	02/09/98	28700	J 3300	9600	9000	4500	13400
NRF-7	05/11/98	31500	J 3300	9500	9700	4300	13600
NRF-7	08/05/98	24100	J 2720	9390	8270	4800	13900
NRF-7	11/02/98	30400	J 2800	9400	9400	4900	13100
NRF-7	02/04/99	27100	J 3020	9480	8730	5100	13200
NRF-7	05/03/99	27700	J 3200	9700	9500	5300	13300
NRF-7	07/27/99	30000	J 2900	9800	8200	5300	14000
NRF-7	11/01/99	28300	J 3000	9800	8900	5800	14200
NRF-7	01/31/00	25900	J 3300	9400	11500	4700	13400
NRF-7	05/01/00	28900	J 2900	9100	8000	4600	13600
Mean		26970.59	2967.06	9262.94	8648.57	5135.29	14820.00
Std. Dev.		2744.26	195.31	406.75	997.84	575.71	3735.19
Max		31500.00	3300.00	9800.00	11000.00	6700.00	35000.00
Min		21000.00	2720.00	8300.00	4500.00	4000.00	13000.00
NRF-8	01/17/96	69000	2100	24000	15000	34000	34000
NRF-8	03/25/96	74000	2200	23000	14000	37000	35000
NRF-8	06/11/96	67000	2400	24000	13000	35000	34000
NRF-8	09/04/96	71000	2200	24000	14000	35000	35000
NRF-8	01/30/97	70000	2000	22000	14000	37000	37000
NRF-8	06/10/97	76000	2400	24500	16300	39300	37300
NRF-8	09/04/97	73000	2200	24600	14800	35100	34800
NRF-8	11/17/97	73000	2500	23500	15100	35500	36700
NRF-8	02/10/98	75500	J 2600	24100	15100	36100	35900
NRF-8	05/13/98	75200	J 2300	23300	15000	36200	36200
NRF-8	08/05/98	70300	J 2290	23400	15200	36600	37500
NRF-8	11/03/98	76300	J 2200	24400	15100	35700	34800
NRF-8	02/11/99	< 70500	J 2400	22300	14500	36500	34700
NRF-8	05/03/99	71500	J 2500	23100	14600	39800	34600
NRF-8	07/28/99	71600	J 2200	23100	15600	36400	35500
NRF-8	11/02/99	66700	J 2300	22900	15200	41700	36200
NRF-8	02/01/00	64700	J 2000	22100	13800	32700	33200
NRF-8	05/02/00	70500	J 1900	22800	12700	32500	33300
Mean		71912.50	2299.38	23512.50	14781.25	36681.25	35575.00
Std. Dev.		3005.52	159.18	765.83	767.87	2006.06	1137.54
Max		76300.00	2600.00	24600.00	16300.00	41700.00	37500.00
Min		66700.00	2000.00	22000.00	13000.00	34000.00	34000.00
NRF-9	01/18/96	74000	2300	25000	17000	45000	49000
NRF-9	03/26/96	79000	2400	23000	17000	46000	50000
NRF-9	06/11/96	68000	2400	25000	16000	48000	48000
NRF-9	09/04/96	73000	2400	24000	17000	48000	49000
NRF-9	01/30/97	72000	2000	22000	17000	49000	51000
NRF-9	06/10/97	79500	2600	25000	19600	51000	48500
NRF-9	09/04/97	78100	2500	25200	18200	46800	46900
NRF-9	11/18/97	76600	2800	23900	18400	47500	48300
NRF-9	02/10/98	79700	J 2800	24500	18200	47100	46800
NRF-9	05/13/98	80200	2600	24500	19700	47900	46800
NRF-9	08/05/98	72200	J 2590	23300	18800	44400	46900
NRF-9	11/03/98	79800	J 2200	24600	18000	45700	44100
NRF-9	02/11/99	74900	J 2210	23000	17200	45600	42800
NRF-9	05/04/99	75300	J 2400	23300	18000	49500	42700
NRF-9	07/28/99	74700	J 2200	23400	17600	45100	43100
NRF-9	11/02/99	68700	J 2400	22700	16900	49300	42400
NRF-9	02/01/00	67200	J 2200	22300	16400	39500	39600
NRF-9	05/02/00	72600	J 2400	22900	16200	40100	40400
Mean		75356.25	2425.00	23900.00	17787.50	47243.75	46643.75
Std. Dev.		3909.64	219.42	972.28	1020.38	1874.73	2791.89
Max		80200.00	2800.00	25200.00	19700.00	51000.00	51000.00
Min		68000.00	2000.00	22000.00	16000.00	44400.00	42400.00

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
NRF-10							
NRF-10	05/08/96	84000	2300	25000	15000	42000	44000
NRF-10	06/12/96	70000	2500	24000	14000	44000	42000
NRF-10	09/04/96	72000	2400	25000	16000	43000	44000
NRF-10	01/30/97	70000	3000	22000	15000	45000	46000
NRF-10	06/11/97	76100	2600	24700	16800	47100	45800
NRF-10	09/04/97	77600	2500	25100	18900	44000	43300
NRF-10	11/18/97	72700	2800	23300	15500	45500	45200
NRF-10	02/10/98	75600	J 3100	24600	15800	44700	43700
NRF-10	05/13/98	76900	B 2600	23500	15800	44700	43700
NRF-10	08/05/98	69200	J 2290	23100	15200	44400	44500
NRF-10	11/03/98	75500	J 2200	24200	16000	42500	40700
NRF-10	02/11/99	66700	J 2560	21700	14400	42200	39900
NRF-10	05/04/99	70500	J 2800	22700	14500	45700	39500
NRF-10	07/29/99	71100	J 2400	23000	16200	41700	39900
NRF-10	11/02/99	66900	J 2400	22600	15200	50000	40800
NRF-10	02/01/00	63400	J 2400	21800	14500	38800	36800
NRF-10	05/02/00	68500	J 2300	22100	13800	37400	37800
	Mean	73120.00	2563.33	23633.33	15620.00	44433.33	42866.67
	Std. Dev.	4463.05	261.52	1120.37	1175.46	2168.83	2225.39
	Max	84000.00	3100.00	25100.00	18900.00	50000.00	46000.00
	Min	66900.00	2200.00	21700.00	14000.00	41700.00	39500.00
NRF-11	01/18/96	70000	2600	24000	19000	43000	47000
NRF-11	03/25/96	78000	2500	23000	18000	46000	49000
NRF-11	06/12/96	65000	2400	25000	18000	45000	47000
NRF-11	09/05/96	72000	2800	23000	19000	44000	50000
NRF-11	01/30/97	68000	3000	22000	18000	46000	49000
NRF-11	06/11/97	75100	2800	24000	20500	48000	49100
NRF-11	09/04/97	73900	2600	24800	18400	42900	43800
NRF-11	11/19/97	74400	2700	23200	18300	43100	44700
NRF-11	02/11/98	74500	J 2800	23900	17600	44400	43500
NRF-11	05/13/98	80300	J 2700	24100	18700	43300	43200
NRF-11	08/05/98	69500	J 2280	22900	17800	45200	44600
NRF-11	11/04/98	71300	J 2500	22900	17600	44100	41400
NRF-11	02/11/99	73600	J 2440	22900	16800	46600	41900
NRF-11	05/04/99	74100	J 2500	23400	17300	Q 44500	41400
NRF-11	07/29/99	69100	J 2500	21900	18500	47200	42300
NRF-11	11/03/99	73200	J 2800	23600	19500	47100	42200
NRF-11	02/01/00	65400	J 2300	22200	17500	40900	38400
NRF-11	05/03/00	68800	J 2300	21500	17300	41200	39100
	Mean	72625.00	2620.00	23406.25	18312.50	45025.00	45006.25
	Std. Dev.	3798.51	190.02	868.31	902.50	1636.46	3051.22
	Max	80300.00	3000.00	25000.00	20500.00	48000.00	50000.00
	Min	65000.00	2280.00	21900.00	16800.00	42900.00	41400.00
NRF-12	01/22/96	75000	2700	26000	22000	58000	59000
NRF-12	03/20/96	80000	2300	23000	22000	57000	60000
NRF-12	06/12/96	69000	2500	26000	21000	59000	58000
NRF-12	09/05/96	72000	2500	25000	21000	59000	59000
NRF-12	01/30/97	76000	3000	23000	21000	62000	62000
NRF-12	06/05/97	80100	2600	24500	22400	61600	60300
NRF-12	09/04/97	80500	2700	26300	23200	60000	57500
NRF-12	11/18/97	80800	2900	24700	22900	61600	60500
NRF-12	02/11/98	82000	J 3000	25700	23600	64400	60300
NRF-12	05/13/98	82300	B 2600	24500	23900	64000	59800
NRF-12	08/05/98	77600	J 2940	25000	25700	Q 64600	60900
NRF-12	11/04/98	76500	J 2700	24100	24100	Q 60900	Q 52400
NRF-12	02/11/99	77100	J 2870	23600	23500	Q 56000	Q 48900
NRF-12	05/05/99	79200	J 3100	24400	25200	Q 59100	Q 47800
NRF-12	07/29/99	76300	J 2500	23800	23700	Q 53400	Q 53400
NRF-12	11/03/99	76000	J 2600	24100	23300	Q 55900	49700
NRF-12	02/02/00	66800	J 2400	22000	20800	49200	45200
NRF-12	05/03/00	70800	J 2600	21800	20600	49000	45500

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
	Mean	77525.00	2719.38	24606.25	23031.25	59781.25	56843.75
	Std. Dev.	3604.90	226.64	1022.07	1407.94	3244.12	4744.11
	Max	82300.00	3100.00	26300.00	25700.00	64600.00	62000.00
	Min	69000.00	2300.00	23000.00	21000.00	53400.00	47800.00
NRF-13	01/22/96	63000	5000	18000	12000	58000	67000
NRF-13	03/20/96	71000	4800	18000	10000	57000	69000
NRF-13	06/13/96	70000	4600	22000	11000	61000	69000
NRF-13	09/05/96	64000	4200	19000	62000	60000	73000
NRF-13	02/03/97	100000	6000	25000	13000	57000	68000
NRF-13	06/09/97	75600	4800	21200	12200	66700	76100
NRF-13	09/05/97	103000	4900	32600	14100	63300	74800
NRF-13	11/19/97	74100	4700	20200	11400	65300	78800
NRF-13	02/11/98	61800	J 4200	16900	10700	65200	78600
NRF-13	05/13/98	73300	J 4000	20000	10900	68000	83100
NRF-13	08/05/98	71200	J 4000	20700	10900	69400	85800
NRF-13	11/04/98	71900	J 4100	21900	11200	Q 69100	Q 82000
NRF-13	02/11/99	71100	J 3870	20400	9590	Q 69000	Q 82100
NRF-13	05/05/99	74000	J 4100	20500	11200	Q 69600	Q 75600
NRF-13	07/29/99	78100	J 3900	24100	11900	Q 69000	Q 81000
NRF-13	11/03/99	73900	J 4000	21900	12300	Q 81200	Q 86900
NRF-13	02/02/00	84800	5100	27200	12000	Q 64600	Q 78800
NRF-13	05/03/00	72000	J 3700	21500	10100	Q 65400	Q 78200
	Mean	74750.00	4448.13	21400.00	14649.38	65550.00	76925.00
	Std. Dev.	11382.38	568.85	3664.42	12674.91	6217.39	6418.67
	Max	103000.00	6000.00	32600.00	62000.00	81200.00	86900.00
	Min	61800.00	3870.00	16900.00	9590.00	57000.00	67000.00
USGS-12	06/15/90	64000	1900	20000	13000	31000	32000
USGS-12	08/06/90				10000	32000	32000
USGS-12	10/10/90				12000	32000	33000
USGS-12	12/11/90				12000	35000	35000
USGS-12	02/07/91				12000	34000	35000
USGS-12	04/11/91				13000	33000	37000
USGS-12	06/10/91				13000	31000	26000
USGS-12	09/06/91				13000	29000	29000
USGS-12	12/05/91				12000	36000	36000
USGS-12	03/12/92				14000	40000	38000
USGS-12	06/19/92				15000	40000	35000
USGS-12	09/18/92				8500	6300	15000
USGS-12	12/01/92				7700	7100	19000
USGS-12	04/13/93				14000	37000	36000
USGS-12	06/14/93				13000	38000	37000
USGS-12	09/16/93				15000	36000	38000
USGS-12	11/05/93				16000	37000	35000
USGS-12	03/11/94				15000	38000	37000
USGS-12	06/10/94				15000	21000	26000
USGS-12	09/09/94				15000	38000	36000
USGS-12	10/27/94				16000	39000	35000
USGS-12	03/20/95				13000	42000	35000
USGS-12	06/14/95				17000	38000	35000
USGS-12	09/12/95				17000	39000	36000
USGS-12	11/02/95				17000	40000	34000
USGS-12	01/16/96	70000	2100	24000	17000	38000	34000
USGS-12	03/21/96	77000	2100	23000	16000	40000	36000
USGS-12	06/10/96	66000	2000	24000	16000	36000	34000
USGS-12	09/03/96	68000	1900	23000	17000	38000	35000
USGS-12	02/04/97	65000	2000	21000	17000	39000	36000
USGS-12	06/09/97	70900	2200	22700	17700	36300	35400
USGS-12	09/03/97	67800	2000	22500	16700	32000	32100
USGS-12	11/18/97	66200	2200	20900	16500	29500	31500
USGS-12	02/11/98	66100	J 2300	21000	16400	28200	30100
USGS-12	05/12/98	65100	J 2100	19700	16100	25000	28400
USGS-12	08/04/98	59000	J 1830	19400	15200	24200	28200
USGS-12	11/04/98	57400	J 1800	18600	14500	19600	25000
USGS-12	02/11/99	56000	J 1940	17700	13300	17400	24300

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
USGS 12	05/05/99	58700	J 2200	18600	13400	17300	23200
USGS 12	07/29/99	57500	J 1700	18400	13300	14900	23900
USGS 12	11/03/99	57300	J 1800	18600	13100	15800	24000
USGS 12	02/02/00	52000	J 1800	17700	10800	12000	21800
USGS 12	05/03/00	55100	J 1800	17400	11100	12600	22700
	Mean	64235.29	2004.12	20776.47	14326.83	31282.93	31782.93
	Std. Dev.	5838.23	169.97	2103.43	2344.14	9393.21	5530.00
	Max	77000.00	2300.00	24000.00	17700.00	42000.00	38000.00
	Min	56000.00	1700.00	17700.00	7700.00	6300.00	15000.00
USGS-97	11/30/89	59000	1800	21000	11000	28000	34000
USGS-97	03/19/90				13000	30000	32000
USGS-97	06/07/90				15000	31000	34000
USGS-97	08/01/90				12000	33000	33000
USGS-97	10/04/90				15000	33000	36000
USGS-97	12/07/90				13000	32000	36000
USGS-97	03/13/91				12000	34000	36000
USGS-97	06/07/91				13000	29000	27000
USGS-97	09/05/91				14000	37000	38000
USGS-97	12/03/91				12000	36000	38000
USGS-97	03/16/92				11000	33000	34000
USGS-97	06/17/92				14000	32000	36000
USGS-97	09/21/92				15000	35000	35000
USGS-97	12/08/92				13000	33000	37000
USGS-97	04/06/93				15000	34000	36000
USGS-97	06/09/93				12000	34000	37000
USGS-97	09/13/93				14000	35000	37000
USGS-97	11/04/93				15000	32000	36000
USGS-97	03/14/94				14000	33000	35000
USGS-97	06/09/94				14000	35000	34000
USGS-97	09/08/94				14000	35000	35000
USGS-97	11/10/94				13000	35000	35000
USGS-97	03/16/95				12000	36000	34000
USGS-97	06/13/95				15000	33000	34000
USGS-97	09/11/95				15000	37000	35000
USGS-97	11/06/95				14000	35000	34000
USGS-97	01/17/96	70000	2100	25000	15000	35000	34000
USGS-97	03/25/96	72000	1900	22000	15000	36000	35000
USGS-97	06/11/96	64000	2000	24000	14000	35000	34000
USGS-97	09/04/96	71000	2000	24000	15000	35000	35000
USGS-97	02/03/97	92000	2000	22000	15000	38000	38000
USGS-97	06/10/97	74600	2200	24300	16400	38100	36200
USGS-97	09/03/97	76500	2400	24100	15900	35500	36600
USGS-97	11/18/97	73100	2400	23600	15600	36000	36200
USGS-97	02/10/98	74800	J 2200	24700	15600	36500	35900
USGS-97	05/12/98	73400	J 2200	23500	15900	36200	35800
USGS-97	08/04/98	70300	J 2090	23900	16200	39400	36700
USGS-97	11/03/98	77100	J 2000	25200	16000	36100	34800
USGS-97	02/09/99	71300	J 1930	23300	16900	14400	21400
USGS 97	05/04/99	73700	J 2100	24000	15800	40000	34400
USGS 97	07/28/99	71600	J 2100	23600	18600	36800	35400
USGS 97	11/02/99	66600	J 1900	23000	15700	41600	35600
USGS 97	02/01/00	84700	J 2100	22600	15500	32900	33300
USGS 97	05/02/00	70100	J 1900	23100	14400	32900	33700
	Mean	72411.76	2077.65	23600.00	14300.00	34276.19	34833.33
	Std. Dev.	6776.51	165.93	1100.57	1549.67	4159.26	2817.60
	Max	92000.00	2400.00	25200.00	16900.00	41600.00	38000.00
	Min	59000.00	1800.00	21000.00	11000.00	14400.00	21400.00
USGS-98	11/29/89	42000	2200	1700	7900	13000	22000
USGS-98	03/19/90				9600	13000	20000
USGS-98	06/05/90				8800	28000	37000
USGS-98	07/30/90				8100	18000	22000
USGS-98	10/03/90				9100	14000	19000
USGS-98	12/07/90				9400	14000	25000

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
USGS-98	03/13/91				8700	15000	22000
USGS-98	06/07/91				10000	16000	11000
USGS-98	09/05/91				8800	14000	22000
USGS-98	12/03/91				7800	17000	24000
USGS-98	03/16/92				8300	17000	21000
USGS-98	06/17/92				9300	14000	33000
USGS-98	09/21/92				8600	17000	23000
USGS-98	12/08/92				9500	14000	22000
USGS-98	04/06/93				9700	14000	21000
USGS-98	06/08/93				8900	18000	22000
USGS-98	09/13/93						
USGS-98	11/02/93						
USGS-98	03/14/94				9700	13000	21000
USGS-98	06/09/94				9900	14000	21000
USGS-98	09/08/94				10000	14000	21000
USGS-98	11/09/94				9500	14000	20000
USGS-98	03/15/95				4800	14000	19000
USGS-98	06/12/95				11000	15000	20000
USGS-98	09/11/95				9500	15000	21000
USGS-98	11/06/95				9800	14000	21000
USGS-98	01/17/96	92000	2000	37000	9900	14000	21000
USGS-98	03/21/96	50000	1900	18000	9300	14000	22000
USGS-98	06/11/96	49000	2000	21000	9300	14000	21000
USGS-98	09/04/96	50000	2000	20000	10000	15000	22000
USGS-98	02/04/97	48000	2000	18000	9600	15000	24000
USGS-98	06/10/97	51300	2200	19700	10400	14600	21600
USGS-98	09/03/97	50400	2000	20100	10100	15100	22000
USGS-98	11/18/97	51400	2300	19400	9700	13900	22200
USGS-98	02/10/98	53000	J 2200	20100	9400		14700
USGS-98	05/12/98	49800	J 2000	18300	9600	14200	21700
USGS-98	08/04/98	48000	J 2030	18800	9680	14600	21900
USGS-98	11/03/98	52800	J 1800	20100	9300	13900	21000
USGS-98	02/09/99	50900	J 1990	19300	10100	14400	21600
USGS-98	05/04/99	51300	J 2300	19400	10200	15400	21300
USGS-98	07/28/99	51100	J 2000	19500	10700	14500	22100
USGS-98	11/02/99	46700	J 2100	18800	9100	16700	22600
USGS-98	02/01/00	46100	J 1900	18700	8200	13600	21000
USGS-98	05/02/00	50800	J 1900	19400	8400	14100	21900
	Mean	52217.65	2060.00	19364.71	9327.00	15084.62	21817.50
	Std. Dev.	10573.21	136.88	6291.75	1013.82	2474.98	3850.67
	Max	92000.00	2300.00	37000.00	11000.00	28000.00	37000.00
	Min	42000.00	1800.00	1700.00	4800.00	13000.00	11000.00
USGS-99	11/30/89	55000	1700	21000	12000	18000	27000
USGS-99	03/20/90				11000	16000	26000
USGS-99	06/05/90				13000	40000	47000
USGS-99	08/01/90				10000	22000	25000
USGS-99	10/03/90				12000	19000	23000
USGS-99	12/10/90				13000	20000	27000
USGS-99	03/13/91				10000	21000	26000
USGS-99	06/07/91				12000	17000	18000
USGS-99	09/05/91				12000	24000	30000
USGS-99	12/03/91				8800	20000	27000
USGS-99	03/16/92				11000	22000	25000
USGS-99	06/16/92				12000	20000	27000
USGS-99	09/21/92				13000	23000	28000
USGS-99	12/08/92				12000	18000	27000
USGS-99	04/06/93				12000	20000	26000
USGS-99	06/09/93				11000	20000	27000
USGS-99	09/13/93				13000	19000	27000
USGS-99	11/02/93				14000	18000	27000
USGS-99	03/14/94				13000	20000	26000
USGS-99	06/09/94				13000	21000	25000
USGS-99	09/07/94				13000	21000	26000
USGS-99	11/09/94				12000	21000	25000
USGS-99	03/15/95				12000	22000	25000

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
USGS-99	06/12/95				14000	21000	25000
USGS-99	09/11/95				15000	21000	26000
USGS-99	11/06/95				14000	21000	25000
USGS-99	01/17/96	58000	1700	22000	14000	21000	25000
USGS-99	03/25/96	64000	1500	22000	14000	21000	27000
USGS-99	06/11/96	58000	1700	22000	14000	22000	26000
USGS-99	09/04/96	62000	1700	22000	14000	22000	27000
USGS-99	02/04/97	62000	2000	21000	14000	24000	28000
USGS-99	06/10/97	65600	1900	22900	15800	23000	28000
USGS-99	09/03/97	63700	1800	23200	15100	21400	25900
USGS-99	11/18/97	63500	2000	21800	15100	21100	26900
USGS-99	02/10/98	64500	J 1800	22700	14500	22000	28500
USGS-99	05/12/98	63600	J 1800	21300	15300	21500	26400
USGS-99	08/04/98	60100	J 1680	21700	14500	22000	26900
USGS-99	11/03/98	64800	J 1700	22600	14700	20600	25100
USGS-99	02/09/99	62500	J 1570	21800	15400	20500	25200
USGS-99	05/04/99	62900	J 1900	21900	14900	22400	24900
USGS-99	07/28/99	61300	J 1700	21500	14400	20800	25900
USGS-99	11/02/99	57100	J 1600	21200	13400	24000	26500
USGS-99	02/01/00	56800	J 1700	21200	13800	19500	25000
USGS-99	05/02/00	63000	J 1800	22200	13600	20900	26000
Mean		61682.35	1750.00	21917.65	13116.67	21292.86	26480.95
Std. Dev.		3033.20	140.27	639.57	1629.74	3436.63	3666.74
Max		65600.00	2000.00	23200.00	15800.00	40000.00	47000.00
Min		55000.00	1500.00	21000.00	8800.00	16000.00	18000.00
USGS-102	06/08/90	62000	2000	21000	13000	29000	26000
USGS-102	08/01/90				11000	28000	28000
USGS-102	10/04/90				12000	30000	34000
USGS-102	12/10/90				13000	28000	33000
USGS-102	02/07/91				12000	30000	31000
USGS-102	04/11/91				11000	31000	32000
USGS-102	06/07/91				12000	23000	23000
USGS-102	09/05/91				13000	36000	39000
USGS-102	12/03/91				9700	32000	35000
USGS-102	03/16/92				11000	31000	34000
USGS-102	06/11/92				13000	30000	35000
USGS-102	09/16/92				13000	46000	46000
USGS-102	12/09/92				13000	31000	36000
USGS-102	04/06/93				12000	31000	35000
USGS-102	06/09/93				12000	33000	36000
USGS-102	09/13/93				14000	33000	36000
USGS-102	11/04/93				14000	32500	35500
USGS-102	03/10/94				13000	32000	35000
USGS-102	06/09/94				13000	34000	35000
USGS-102	09/08/94				13000	35000	35000
USGS-102	11/08/94				13000	34000	34000
USGS-102	03/16/95				7500	36000	33000
USGS-102	06/13/95				14000	32000	34000
USGS-102	09/13/95				15000	34000	34000
USGS-102	11/07/95				14000	34000	34000
USGS-102	01/18/96	69000	2100	25000	14000	34000	33000
USGS-102	03/19/96	75000	2000	22000	14000	35000	35000
USGS-102	06/11/96	66000	2200	24000	14000	34000	33000
USGS-102	09/04/96	74000	2100	24000	15000	33000	35000
USGS-102	02/03/97	67000	2000	21000	14000	37000	38000
USGS-102	06/09/97	74400	2300	23900	15200	38900	36500
USGS-102	09/03/97	76200	2400	23400	15200	36800	36400
USGS-102	11/17/97	73200	J 5000	23600	15100	35700	36300
USGS-102	02/09/98	75700	J 2600	24000	15100	36100	35500
USGS-102	05/11/98	76000	J 2200	23200	15100	35700	35700
USGS-102	08/03/98	71900	J 2340	23500	16000	36600	36100
USGS-102	11/02/98	77000	J 2000	24700	15100	35200	34100
USGS-102	02/09/99	71900	J 2170	23000	16300	36000	34400
USGS-102	05/03/99	71700	J 2400	23400	15700	39500	34300
USGS-102	07/27/99	73100	J 2000	23600	14000	36200	35100

J = Estimated Value

Appendix E, Table 3 - Salt Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
USGS-102	11/01/99	65700	J 2400	22400	15500	41200	35700
USGS-102	01/31/00	64600	J 1800	22100	15100	31900	32600
USGS-102	05/01/00	67100	J 2100	21400	15100	31800	33400
Mean		71752.94	2365.29	23276.47	13426.83	33814.63	34453.66
Std. Dev.		4348.15	702.94	1120.56	1791.79	3943.38	3420.61
Max		77000.00	5000.00	25000.00	16300.00	46000.00	46000.00
Min		62000.00	2000.00	21000.00	7500.00	23000.00	23000.00

Table 4

Nutrient Concentrations – 1989 to Present

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. s = Sample diluted due to the concentration of target analytes.
 U = The MDL was raised to accommodate the detection of constituents in blank Q = The reporting limit was elevated due to high analyte levels
 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO ₂		NO ₂ + NO ₃ as N		TKN	TOX		P as P		TOC
NRF-6	01/08/92			1600							900
NRF-6	03/10/92			1700							600
NRF-6	05/14/92			1700							600
NRF-6	07/08/92			1800							600
NRF-6	09/18/92			1700							900
NRF-6	12/09/92			1800							600
NRF-6	04/09/93			1900							1200
NRF-6	No Data										
NRF-6	09/14/93			1800							
NRF-6	11/04/93			1900							600
NRF-6	03/10/94			1800							700
NRF-6	06/09/94			1800							1000
NRF-6	No Data										
NRF-6	12/21/94			1900							2000
NRF-6	03/16/95			1900					90		3500
NRF-6	06/09/95			1900					80		800
NRF-6	09/13/95			1900					90		5100
NRF-6	11/07/95			1800					60		700
NRF-6	01/16/96			1900					70		2300
NRF-6	03/19/96			1900					10		900
NRF-6	06/10/96			1900					50		1100
NRF-6	09/05/96			1700					80		1200
NRF-6	01/31/97	500		1800					100		900
NRF-6	06/05/97	10		2000	A	500		20	200		670
NRF-6	09/02/97	10		1900	A	500		30	99	J	260
NRF-6	11/17/97	10		1800	A	500		19	120	J	850
NRF-6	02/09/98	3		2000	J	320	JB	15	UBJ	100	270
NRF-6	05/11/98	2		1700	J	370	JB	13		110	760
NRF-6	08/04/98	10		1600	J	500	J	59	J	81	1000
NRF-6	11/02/98	10		1600	A	150		30	J	120	350
NRF-6	02/04/99	10		1700	J	88	J	14		93	1000
NRF-6	05/03/99	7		470	A	500	J	12	A	30	530
NRF-6	07/27/99	10		1800	J	180	A	30	J	45	1000
NRF-6	11/01/99	10		1800	A	500	A	30	J	35	1000
NRF-6	01/31/00	10		1700		930	A	30		91	400
NRF-6	05/01/00	10		1800	A	500	J	12	A	50	540
Mean		49.38		1764.69		373.45		24.70		83.15	1093.23
Std. Dev.		141.94		259.59		163.64		13.65		40.96	975.42
Max		500.00		2000.00		500.00		59.00		200.00	5100.00
Min		2.10		470.00		88.00		12.00		10.00	260.00
NRF-7	09/10/91			380							400
NRF-7	01/08/92			390						154	600
NRF-7	03/10/92			440							500
NRF-7	05/14/92			420							200
NRF-7	07/08/92			460							100
NRF-7	09/18/92			500							800
NRF-7	12/09/92			540							100
NRF-7	04/09/93			470							500
NRF-7	06/10/93			480							200
NRF-7	09/14/93			530							100
NRF-7	11/03/93			530							100
NRF-7	03/15/94			470							200
NRF-7	06/13/94			430							180
NRF-7	09/12/94			460							100
NRF-7	11/04/94			460							100
NRF-7	03/17/95			380					A	10	700
NRF-7	06/09/95			450						10	400
NRF-7	09/14/95			500					A	10	200
NRF-7	11/08/95			430						50	300
NRF-7	01/16/96			490					A	10	800
NRF-7	03/19/96			460						10	300
NRF-7	06/10/96			500						30	100
NRF-7	09/03/96			470						20	500

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. s = Sample diluted due to the concentration of target analytes.
 U = The MDL was raised to accommodate the detection of constituents in blank Q = The reporting limit was elevated due to high analyte levels
 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO2 + NO3		TKN	TOX	P as P		TOC
		NO2	as N					
NRF-7	01/31/97	10	450			<	50	<
NRF-7	06/05/97	10	720	500	8		170	<
NRF-7	09/02/97	10	680	500	30		24	<
NRF-7	11/18/97	10	440	500	30		39	<
NRF-7	02/09/98	3	590	94	30	UBJ	34	<
NRF-7	05/11/98	2	470	180			22	<
NRF-7	08/05/98	10	470	500	30	J	22	<
NRF-7	11/02/98	10	460	500	30	J	35	<
NRF-7	02/04/99	10	530	110	30	J	39	<
NRF-7	05/03/99	330	660	500	30	<	30	<
NRF-7	07/27/99	10	470	120	30	J	31	<
NRF-7	11/01/99	10	470	500	30	J	40	<
NRF-7	01/31/00	10	500	78	30	J	38	<
NRF-7	05/01/00	10	460	500	30	J	32	<
Mean		35.38	487.14	364.00	27.79		40.00	511.71
Std. Dev.		92.83	76.14	189.81	6.99		42.57	367.48
Max		330.00	720.00	500.00	30.00		170.00	1000.00
Min		1.80	380.00	94.00	7.90		10.00	100.00
NRF-8	01/17/96		2000				20	300
NRF-8	03/25/96		1900			<	10	4900
NRF-8	06/11/96		2000				40	700
NRF-8	09/04/96		1900				30	500
NRF-8	01/30/97	100	2000			<	50	400
NRF-8	06/10/97	10	2300	500	4		180	500
NRF-8	09/04/97	5	2100	500	8		26	220
NRF-8	11/17/97	10	2000	500	30		85	560
NRF-8	02/10/98	10	2200	500	30	UBJ	46	200
NRF-8	05/13/98	6	2100	220	30		52	<
NRF-8	08/05/98	10	1900	190	16	J	27	<
NRF-8	11/03/98	10	2300	500	230	<	23	<
NRF-8	02/11/99	J 2	Q 2200	J 100	30	J	47	<
NRF-8	05/03/99	11	2200	J 340	30	<	30	370
NRF-8	07/28/99	10	2300	110	30	J	35	510
NRF-8	11/02/99	10	2000	500	30		57	1000
NRF-8	02/01/00	10	2200	260	30		69	<
NRF-8	05/02/00	< 10	1900	500	30		56	<
Mean		16.11	2087.50	360.00	42.50		47.38	885.00
Std. Dev.		26.57	145.49	172.22	62.98		39.62	1111.08
Max		100.00	2300.00	500.00	230.00		180.00	4900.00
Min		2.00	1900.00	100.00	3.90		10.00	200.00
NRF-9	01/18/96		2300				30	400
NRF-9	03/26/96		2200			<	10	400
NRF-9	06/11/96		2400				30	400
NRF-9	09/04/96		2200				20	600
NRF-9	01/30/97	100	2300			<	50	400
NRF-9	06/10/97	10	2500	500	30		200	560
NRF-9	09/04/97	5	2200	500	9		89	220
NRF-9	11/18/97	10	2400	500	30		42	J 690
NRF-9	02/10/98	3	2400	500	30	UBJ	38	<
NRF-9	05/13/98	6	2100	220	30		52	<
NRF-9	08/05/98	10	2100	500	50	J	33	<
NRF-9	11/03/98	10	2400	79	69	J	26	<
NRF-9	02/11/99	J 2	Q 2000	500	10		57	<
NRF-9	05/04/99	10	2300	500	4	<	30	850
NRF-9	07/28/99	10	2300	120	30	J	31	490
NRF-9	11/02/99	10	2200	500	4	J	41	<
NRF-9	02/01/00	10	2100	820	30		59	<
NRF-9	05/02/00	< 10	2300	500	30		55	<
Mean		15.44	2268.75	401.73	26.89		48.69	645.63
Std. Dev.		26.81	135.25	171.41	20.04		44.17	286.80
Max		100.00	2500.00	500.00	69.00		200.00	1000.00

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. s = Sample diluted due to the concentration of target analytes.
 U = The MDL was raised to accommodate the detection of constituents in blank Q = The reporting limit was elevated due to high analyte levels
 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	Min	NO2 2.00	NO2 + NO3 as N 2000.00	TKN 79.00	TOX 4.00	P as P 10.00	TOC 220.00
NRF-10								
NRF-10	05/08/96			1800			90	100
NRF-10	06/12/96			1900			60	1700
NRF-10	09/04/96			1800			20	400
NRF-10	01/30/97		100	1800			50	400
NRF-10	06/11/97		10	2200	A 500	3	210	470
NRF-10	09/04/97		5	1900	A 500	4	42	480
NRF-10	11/18/97		10	1900	A 500	30	47	540
NRF-10	02/10/98		4	2000	A 500	9	160	1000
NRF-10	05/13/98		4	1900	U 370	30	40	1000
NRF-10	08/05/98		10	1800	U 63	21	27	1000
NRF-10	11/03/98		10	2100	A 500	55	25	1000
NRF-10	02/11/99	J	2	Q 1800	U 91	30	58	1000
NRF-10	05/04/99		10	1900	A 500	4	84	860
NRF-10	07/29/99		10	2100	A 500	30	17	950
NRF-10	11/02/99		10	1800	A 500	30	43	1000
NRF-10	02/01/00		5	1700	A 500	30	65	1000
NRF-10	05/02/00	A	10	1800	A 500	30	38	1000
Mean			15.40	1913.33	411.27	22.35	64.87	793.33
Std. Dev.			26.82	130.20	169.87	16.09	53.90	393.19
Max			100.00	2200.00	500.00	55.00	210.00	1700.00
Min			2.00	1800.00	63.00	2.80	17.00	100.00
NRF-11	01/18/96			2000			10	2500
NRF-11	03/25/96			1900			40	500
NRF-11	06/12/96			2000			40	3500
NRF-11	09/05/96			1900			20	2900
NRF-11	01/30/97		100	2000			50	400
NRF-11	06/11/97		10	2300	A 500	10	200	560
NRF-11	09/04/97		5	2000	A 500	7	26	330
NRF-11	11/19/97		10	2300	A 500	8	41	410
NRF-11	02/11/98		10	2200	A 500	30	45	1000
NRF-11	05/13/98		4	2100	J 220	30	46	1000
NRF-11	08/05/98		10	2000	J 260	24	34	1000
NRF-11	11/04/98		10	2400	J 500	66	39	1000
NRF-11	02/11/99	#REF!	13	Q 2200	J 79	12	50	1000
NRF-11	05/04/99		10	2100	A 500	30	30	980
NRF-11	07/29/99		10	2300	J 410	30	53	480
NRF-11	11/03/99		10	2100	A 500	30	30	1000
NRF-11	02/01/00		10	1900	U 590	30	59	1000
NRF-11	05/03/00	A	10	#REF! 2000	J 450	5	21	310
Mean			16.81	2112.50	406.27	25.15	47.13	1160.00
Std. Dev.			26.31	154.38	149.90	16.81	42.39	951.20
Max			100.00	2400.00	500.00	66.00	200.00	3500.00
Min			4.00	1900.00	79.00	6.50	10.00	330.00
NRF-12	01/22/96			2100			10	2500
NRF-12	03/20/96			1900			30	1200
NRF-12	06/12/96			2100			30	500
NRF-12	09/05/96			2000			10	2100
NRF-12	01/30/97		100	2100			50	500
NRF-12	06/05/97		10	2300	A 500	9	240	310
NRF-12	09/04/97		5	2100	A 500	11	28	420
NRF-12	11/18/97		10	2100	A 500	9	38	620
NRF-12	02/11/98		10	2300	A 500	11	49	1000
NRF-12	05/13/98		5	2100	U 300	30	37	1000
NRF-12	08/05/98		10	2000	U 550	19	23	1000
NRF-12	11/04/98	A	10	Q 2400	U 150	42	28	1000
NRF-12	02/11/99		10	2100	A 500	8	35	1000
NRF-12	05/05/99		10	2100	A 500	5	50	540
NRF-12	07/29/99		10	2100	A 500	30	50	380
NRF-12	11/03/99		10	2000	J 99	30	34	1000

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. S = Sample diluted due to the concentration of target analytes.
 U = The MDL was raised to accommodate the detection of constituents in blank Q = The reporting limit was elevated due to high analyte levels
 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO2 + NO3				TKN	TOX	P as P		TOC
		NO2	as N							
NRF-12	02/02/00	10	1900			500	30	66		1000
NRF-12	05/03/00	10	1900			250	30	28		260
	Mean	16.69	2112.50			418.09	18.59	46.25		941.88
	Std. Dev.	26.30	125.83			158.75	12.34	53.20		605.47
	Max	100.00	2400.00			550.00	42.00	240.00		2500.00
	Min	4.90	1900.00			99.00	5.00	10.00		310.00
NRF-13	01/22/96		810					90		1800
NRF-13	03/20/96		740					160		1000
NRF-13	06/13/96		800					150		200
NRF-13	09/05/96		750					170		900
NRF-13	02/03/97	60	750					900		500
NRF-13	06/09/97	10	900			500	13	480		340
NRF-13	09/05/97	9	800			500	14	88		1000
NRF-13	11/19/97	6	980			500	30	170		350
NRF-13	02/11/98	10	1100			500	11	79		1000
NRF-13	05/13/98	7	830			300	20	51		1000
NRF-13	08/05/98	10	740			320	18	110		1000
NRF-13	11/04/98	10	890			500	15	100		1000
NRF-13	02/11/99	7	910			200	13	84		1000
NRF-13	05/05/99	10	800			240	8	120		310
NRF-13	07/29/99	10	870			500	30	130		430
NRF-13	11/03/99	10	840			500	6	85		1000
NRF-13	02/02/00	10	750			500	30	500		1000
NRF-13	05/03/00	10	850			500	30	94		1000
	Mean	13.28	844.38			414.55	16.17	185.44		801.88
	Std. Dev.	14.79	96.88			122.34	7.93	214.24		414.01
	Max	60.00	1100.00			500.00	30.00	900.00		1800.00
	Min	6.40	740.00			200.00	6.00	51.00		200.00
USGS-12	06/15/90		1600				20			300
USGS-12	08/06/90	10	1600							300
USGS-12	10/10/90	10	1700							400
USGS-12	12/11/90	10	1800							700
USGS-12	02/07/91	20	1700							300
USGS-12	04/11/91	10	1700							600
USGS-12	06/10/91	10	1800							400
USGS-12	09/06/91	10	1700							400
USGS-12	12/05/91	10	1800							500
USGS-12	03/12/92	10	1900							400
USGS-12	06/19/92	10	2000							300
USGS-12	09/18/92	10	950							400
USGS-12	12/01/92	20	2000							400
USGS-12	04/13/93	10	2000							400
USGS-12	06/14/93	10	2100							600
USGS-12	09/16/93	10	2000							1700
USGS-12	11/05/93	10	2000							400
USGS-12	03/11/94	10	2200							400
USGS-12	06/10/94	10	2100							400
USGS-12	09/09/94	10	2000							400
USGS-12	10/27/94	10	2000							500
USGS-12	03/20/95	10	2100					10		14000
USGS-12	06/14/95	10	2100					30		1100
USGS-12	09/12/95	10	2100					20		400
USGS-12	11/02/95	10	2000					70		500
USGS-12	01/16/96	100	2200					10		1700
USGS-12	03/21/96	10	2100					30		800
USGS-12	06/10/96	10	2200					10		2000
USGS-12	09/03/96	4	2000					30		1900
USGS-12	02/04/97	100	1800					50		400
USGS-12	06/09/97	10	2200			500	30	170		500
USGS-12	09/03/97	10	2000			500	6	27		320
USGS-12	11/18/97	4	1800			500	30	35		3600
USGS-12	02/11/98	10	1600			500	30	5		1000

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. s = Sample diluted due to the concentration of target analytes.
 U = The MDL was raised to accommodate the detection of constituents in blank Q = The reporting limit was elevated due to high analyte levels
 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO2 + NO3		TKN	TOX	P as P	TOC
		NO2	as N				
USGS-12	05/12/98	1	1400	270	30	22	440
USGS-12	08/04/98	10	1300	500	55	32	1000
USGS-12	11/04/98	10	1500	500	48	25	320
USGS-12	02/11/99	3	1100	500	30	48	1000
USGS 12	05/05/99	10	1000	330	30	50	1000
USGS 12	07/29/99	8	950	200	30	53	640
USGS 12	11/03/99	10	820	120	30	41	1000
USGS 12	02/02/00	10	900	670	30	52	260
USGS 12	05/03/00	10	890	350	30	25	1000
	Mean	14.23	1778.54	401.82	30.72	34.90	1068.78
	Std. Dev.	20.19	379.69	144.97	12.20	35.39	2166.93
	Max	100.00	2200.00	500.00	55.00	170.00	14000.00
	Min	1.10	820.00	120.00	5.60	4.90	300.00
USGS-97	11/30/89		1900		20		300
USGS-97	03/19/90	10	2000				400
USGS-97	06/07/90	10	1800				200
USGS-97	08/01/90	10	1800				300
USGS-97	10/04/90	10	1900				500
USGS-97	12/07/90	10	1800				300
USGS-97	03/13/91	10	1900				300
USGS-97	06/07/91	10	1900				300
USGS-97	09/05/91	10	2000				600
USGS-97	12/03/91	10	1900				600
USGS-97	03/16/92	10	1900				300
USGS-97	06/17/92	10	2000				800
USGS-97	09/21/92	10	1900				600
USGS-97	12/08/92	10	2100				400
USGS-97	04/06/93	10	2000				500
USGS-97	06/09/93	10	1900				400
USGS-97	09/13/93	10	2100				500
USGS-97	11/04/93	10	2000				400
USGS-97	03/14/94	10	2000				500
USGS-97	06/09/94	10	2000				600
USGS-97	09/08/94	10	2000				400
USGS-97	11/10/94	10	2000				400
USGS-97	03/16/95	10	330			10	800
USGS-97	06/13/95	10	2000			30	500
USGS-97	09/11/95	10	2100			10	1300
USGS-97	11/06/95	10	1900			30	500
USGS-97	01/17/96	10	2200			10	1600
USGS-97	03/25/96	10	2000			50	600
USGS-97	06/11/96	10	2100			40	600
USGS-97	09/04/96	10	2100			30	400
USGS-97	02/03/97	100	2100			50	300
USGS-97	06/10/97	10	2400	500	30	210	460
USGS-97	09/03/97	10	2300	500	11	26	640
USGS-97	11/18/97	10	2200	500	30	38	3700
USGS-97	02/10/98	5	2300	500	30	45	1000
USGS-97	05/12/98	1	1200	220	30	17	390
USGS-97	08/04/98	10	2000	500	30	29	1000
USGS-97	11/03/98	10	2400	500	73	30	350
USGS-97	02/09/99	10	2400	180	30	53	1000
USGS 97	05/04/99	10	2200	500	30	30	760
USGS 97	07/28/99	10	2300	500	30	33	310
USGS 97	11/02/99	10	2200	500	30	32	1000
USGS 97	02/01/00	10	1900	230	30	54	1000
USGS 97	05/02/00	10	2100	500	4	43	310
	Mean	11.86	1988.81	445.45	31.13	40.15	638.33
	Std. Dev.	14.20	335.09	121.69	14.49	41.96	565.81
	Max	100.00	2400.00	500.00	73.00	210.00	3700.00
	Min	0.91	330.00	180.00	10.60	10.00	200.00
USGS-98	11/29/89		1100		20		100

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. S = Sample diluted due to the concentration of target analytes.

U = The MDL was raised to accommodate the detection of constituents in blank

Q = The reporting limit was elevated due to high analyte levels

Wa = Post digestion spike recovery fell between 40-85% due to matrix interference

D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO ₂ + NO ₃		TKN	TOX	P as P	TOC
		NO ₂	as N				
USGS-98	03/19/90	10	3000				100
USGS-98	06/05/90	10	1100				300
USGS-98	07/30/90	10	1100				200
USGS-98	10/03/90	10	1000				200
USGS-98	12/07/90	10	1100				100
USGS-98	03/13/91	10	1100				100
USGS-98	06/07/91	10	1100				200
USGS-98	09/05/91	10	1100				200
USGS-98	12/03/91	10	1100				400
USGS-98	03/16/92	10	1000				100
USGS-98	06/17/92	10	1100				200
USGS-98	09/21/92	10	1000				500
USGS-98	12/08/92	10	1100				300
USGS-98	04/06/93	10	1100				100
USGS-98	06/08/93	10	1000				200
USGS-98	09/13/93						
USGS-98	11/02/93						
USGS-98	03/14/94	10	1100				400
USGS-98	06/09/94	10	1100				200
USGS-98	09/08/94	10	1000				900
USGS-98	11/09/94	10	1100				200
USGS-98	03/15/95	10	1000			10	14000
USGS-98	06/12/95	10	1000			30	300
USGS-98	09/11/95	10	1200			40	600
USGS-98	11/06/95	10	1100			50	1100
USGS-98	01/17/96	10	1200			10	600
USGS-98	03/21/96	10	1100			30	700
USGS-98	06/11/96	10	1200			30	400
USGS-98	09/04/96	10	1100			60	800
USGS-98	02/04/97	100	1200			50	400
USGS-98	06/10/97	10	1500	<	500	30	300
USGS-98	09/03/97	10	1200	<	500	30	250
USGS-98	11/18/97	10	1300	<	500	30	410
USGS-98	02/10/98	3	1500	<	500	30	<
USGS-98	05/12/98	1	1200	J	220	30	J
USGS-98	08/04/98	10	1100	<	500	14	<
USGS-98	11/03/98	10	1400	<	500	90	<
USGS-98	02/09/99	10	960	<	500	30	<
USGS-98	05/04/99	10	1200	<	500	4	<
USGS-98	07/28/99	10	1200	J	72	30	J
USGS-98	11/02/99	10	1100	<	500	12	<
USGS-98	02/01/00	10	1100	<	500	30	<
USGS-98	05/02/00	A	1300	<	500	30	J
Mean		11.89	1179.00	435.64	29.17	41.10	790.00
Std. Dev.		14.60	319.45	146.97	21.21	41.93	2164.89
Max		100.00	3000.00	500.00	90.00	210.00	14000.00
Min		0.91	960.00	72.00	4.00	10.00	100.00
USGS-99	11/30/89		1600		20		200
USGS-99	03/20/90		1500				200
USGS-99	06/05/90		1600				300
USGS-99	08/01/90		1600				300
USGS-99	10/03/90		1500				400
USGS-99	12/10/90		1500				300
USGS-99	03/13/91		1600				300
USGS-99	06/07/91		1600				300
USGS-99	09/05/91		1500				700
USGS-99	12/03/91		1500				400
USGS-99	03/16/92		1500				100
USGS-99	06/16/92		1500				300
USGS-99	09/21/92		1500				700
USGS-99	12/08/92		1600				600
USGS-99	04/06/93		1500				1700
USGS-99	06/09/93		1500				300
USGS-99	09/13/93		1600				500

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. s = Sample diluted due to the concentration of target analytes.
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 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO2 + NO3		TKN	TOX	P as P	TOC
		NO2	as N				
USGS-99	11/02/93		1600				400
USGS-99	03/14/94		1600				600
USGS-99	06/09/94		1600				1500
USGS-99	09/07/94		1400				600
USGS-99	11/09/94		1600				600
USGS-99	03/15/95		1600			20	19000
USGS-99	06/12/95		1500			30	500
USGS-99	09/11/95		1600			20	3800
USGS-99	11/06/95		1500			60	1000
USGS-99	01/17/96		1700			10	300
USGS-99	03/25/96		1600			10	200
USGS-99	06/11/96		1700			40	2400
USGS-99	09/04/96		1600			40	2300
USGS-99	02/04/97	100	1700			80	300
USGS-99	06/10/97	10	2000	A	500	30	500
USGS-99	09/03/97	10	1800	A	500	5	200
USGS-99	11/18/97	36	1700		500	30	640
USGS-99	02/10/98	10	1900	A	500	30	1000
USGS-99	05/12/98	1	1600	U	180	8	380
USGS-99	08/04/98	10	1500	A	500	15	1000
USGS-99	11/03/98	10	1900	A	500	30	1000
USGS-99	02/09/99	10	1500	A	500	30	1000
USGS-99	05/04/99	10	1700	A	500	30	860
USGS-99	07/28/99	10	1700	U	420	30	890
USGS-99	11/02/99	10	1600	A	500	30	1000
USGS-99	02/01/00	10	1600	U	170	30	1000
USGS-99	05/02/00	10	1700	A	500	30	380
Mean		18.89	1604.76		463.64	23.99	1180.24
Std. Dev.		26.82	122.88		97.08	9.57	2904.33
Max		100.00	2000.00		500.00	30.00	19000.00
Min		0.68	1400.00		180.00	4.80	100.00
USGS-102	06/08/90		1700			20	300
USGS-102	08/01/90		300				300
USGS-102	10/04/90		1700				400
USGS-102	12/10/90		1700				400
USGS-102	02/07/91		1600				400
USGS-102	04/11/91		1700				400
USGS-102	06/07/91		1800				400
USGS-102	09/05/91		1800				200
USGS-102	12/03/91		1800				500
USGS-102	03/16/92		1700				200
USGS-102	06/11/92		1800				400
USGS-102	09/16/92		1800				800
USGS-102	12/09/92		1900				400
USGS-102	04/06/93		1800				800
USGS-102	06/09/93		1800				400
USGS-102	09/13/93		2000				500
USGS-102	11/04/93		2000				400
USGS-102	03/10/94		2000				1100
USGS-102	06/09/94		2000				800
USGS-102	09/08/94		1900				1400
USGS-102	11/08/94		1900				400
USGS-102	03/16/95		1800				5600
USGS-102	06/13/95		1900			A	30
USGS-102	09/13/95		2000				30
USGS-102	11/07/95		1900				40
USGS-102	01/18/96		2100				10
USGS-102	03/19/96		2000				20
USGS-102	06/11/96		2100				50
USGS-102	09/04/96		2000				10
USGS-102	02/03/97	100	2100			A	50
USGS-102	06/09/97	10	2300	A	500	12	190
USGS-102	09/03/97	10	2300	A	500	6	27
USGS-102	11/17/97	10	2200	A	500	30	34

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration. s = Sample diluted due to the concentration of target analytes.
 U = The MDL was raised to accomodate the detection of constituents in blank Q = The reporting limit was elevated due to high analyte levels
 Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution

Appendix E, Table 4 - Nutrient Concentrations 1989 to Present (Concentrations in ppb)

Well Number	Date Sampled	NO2	NO2 + NO3 as N	TKN	TOX	P as P	TOC
USGS-102	02/09/98	4	2200	500	30	47	1000
USGS-102	05/11/98	1	2100	210	30	22	450
USGS-102	08/03/98	10	1900	500	22	26	1000
USGS-102	11/02/98	10	2100	500	30	32	230
USGS-102	02/09/99	10	2400	500	9	53	1000
USGS-102	05/03/99	12	1900	76	3	30	360
USGS-102	07/27/99	10	2100	150	30	30	480
USGS-102	11/01/99	10	2100	890	30	27	570
USGS-102	01/31/00	10	1900	220	30	52	1000
USGS-102	05/01/00	10	1900	500	30	22	400
	Mean	16.39	1907.32	438.73	21.04	38.40	804.88
	Std. Dev.	26.52	317.32	222.97	10.67	37.92	1061.55
	Max	100.00	2400.00	890.00	30.00	190.00	5600.00
	Min	1.10	300.00	76.00	3.00	10.00	200.00